

Pharmaceutical Design and Engineering – DTU

Master project proposal

PROJECT TITLE (preliminary, can be changed later): Development and validation of MLC3 muscle biomarker assay
PROPOSER / PROJECT SUPERVISOR (include <u>contact details</u>): Anders Nedergaard, PhD Muscle biomarkers Nordic Bioscience Biomarkers and Research Tlf: +45 51365273 E-mail: afn@nordicbioscience.com
PROJECT LOCATION (company name and address): Nordic Bioscience, Herlev Hovedgade 207, 2730 Herlev.
PROJECT SYNOPSIS (½ page): Nordic Bioscience is looking for a qualified MSc student for working with an ELISA assay in our muscle biomarker programs. This assay is directed at a fragment of Myosin Light Chain produced through caspase-3 cleavage. A fragment, we believe may represent a biomarker of muscle loss or muscle pathology. The student need not be familiar with ELISA assay optimization, but should have a steady hand, feel at home in the lab and take pride in performing solid lab work and documenting his/her efforts accordingly. The work will include optimizing the technical aspects of the assay, e.g. buffer systems, incubation conditions, standard curves. Upon finishing the technical optimization, taking the assay into clinical validation, which includes applying the assay, measuring levels of the MLC3 biomarker in one or more relevant clinical studies, from which we have relevant muscle endpoint measures, that we can correlate biomarker measurements to. For clinical validation purposes, we already have a number of clinical studies from which to choose, including immobilization/remobilization intervention studies, cachexia observational studies and cross-sectional studies and more studies are coming in during 2013. If the project proceeds according to plan, this should result in several authorships.